

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000499**Date Inspected:** 04-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** CWI/QC Fu Guogang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** MUSA-SA 104 #73**Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM), Quality Assurance (QA) Inspector, David A. Smith was present for the random observations related to the following;

Item-1 MUSA-SA 104 Plate Joint #73. This Caltrans QA Inspector monitored the ultrasonic scanning of this 485 plate material, weld 73, which had a thickness of 70mm. The testing was performed by Ultrasonic Testing (UT) technician LI LI Ming. Mr. Ming UT unit was a Panametrics, SN 05139272 and had a calibration due date of Jan. 1, 2008 using a 1.0" diameter, 2.5 MHz, DF P25 straight beam transducer for the lamination check and a 2.5 MHz, 18x18 45 degree transducer SN3170 for the shear wave testing on side A. ZPMC UT technician Li Li Ming was observed during his calibration of the straight beam as well as the 45 degree transducers. Scanning with the 70 degree transducer on side A was performed by E. Shuiqin utilizing a Panametrics unit SN061488510 with a calibration due date of July 25, 2008, with a 2.5 MHz, 18x18, 70 degree transducer SN1403. The couplant being used by both technicians was cellulose gum and water. There were no relevant indications noted by either technician during the scanning of side A of this plate. Once the plate had been turned over making side B accessible scanning was performed by Li Li Ming utilizing the same transducers as listed above and the Panametrics unit SN 061488510. No relevant indications were noted by either of the ZPMC technicians during the testing of side B. The ultrasonic procedure utilized was ZPMC ZTC-W-UT-021. The ZPMC CWI/QC present was Fu Guogong with the QA being Fu Yuhong.

Item-2 Skin Plate-C Stiffener Plate #4. Welding of the filler passes was in progress on this 345 steel plate using the weld procedure WPS-B-T-2332-TC-P5-F. The temperature was observed at 136 and 141 degrees C. Two welding operators Xin Meng #053742 and Liu Xie #066236 were visually observed with a travel speed of 302.94 mm/min., Amps was recorded at 300.6 and the Volts at 31.5. The ZPMC QA present was Fu Yuhong and the CWI/QC being Gu Xinzhai.

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

Item-3 Skin Plate-E Stiffener Plate #4. The root of stiffener plate #4 was being back gouged down to good material prior to any further welding. The Bureau of Veritas (BV) CWI was identified as Xu Liang Zhang.

### Summary of Conversations:

There were no conversations pertinent to this project that took place during this shift.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Smith,David	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer

---